|  |  |
| --- | --- |
| Different types of Keys in DB | |
| Key | Description |
| Primary key | A primary key is a unique identifier for a record in a table. It ensures that each row in the table is uniquely identifiable and is used as a reference point for any related data in other tables. |
| Foreign key | A foreign key is a field in a table that refers to the primary key in another table. It is used to establish a relationship between two tables in a database. |
| Candidate key | A candidate key is a field or combination of fields in a table that could potentially serve as a primary key. It is a unique identifier for a record in a table, but it is not necessarily chosen as the primary key. |
| Super key | A super key is a set of one or more fields in a table that can uniquely identify a record. It is a broader concept than a primary key or candidate key, as it may include extra fields that are not necessary for uniqueness. |
| Partial key | A partial key is a set of attributes that can uniquely identify a specific record in a table. It is also called a candidate key or a minimal superkey. |
| Alternate key | An alternate key is a candidate key that is not chosen as the primary key. It is used as a secondary means of identifying a record in a table. |
| Unique key | A unique key is a constraint that ensures that the values in a field or combination of fields are unique. It is similar to a primary key or candidate key, but it does not necessarily serve as a unique identifier for a record in a table. |
| Composite key | A composite key is a primary key that consists of two or more fields in a table. It is used when a single field cannot uniquely identify a record, but the combination of fields can. |
| Surrogate key | A surrogate key is a unique identifier for a record in a table that is not derived from the data itself. It is usually an auto-generated number or GUID. |
| Natural key | A natural key is a unique identifier for a record in a table that is derived from the data itself. It may be a person's name, a product's SKU, or some other natural identifier. |
| Index key | An index key is a field or combination of fields in a table that is used to create an index. It helps to speed up database queries by allowing the database to quickly locate specific records based on the indexed fields. |
| Cluster key | A cluster key is a primary key that is used to physically order the records in a table based on the values in the key. It is used to speed up queries that retrieve sequential data. |